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Baldwin (Wm.)

A SHORT
PRACTICAL NARRATIVE
OF THE
DISEASES WHICH PREVAILED AMONG
THE
AMERICAN SEAMEN, AT WAMPOA IN CHINA;
IN THE YEAR 1805;
WITH SOME ACCOUNT OF DISEASES WHICH APPEARED
AMONG THE CREW OF THE SHIP NEW-JERSEY,
ON THE PASSAGE FROM THENCE,
TO PHILADELPHIA.
SUBMITTED
As an Inaugural Dissertation,
TO THE EXAMINATION OF THE
REV. J. ANDREWS, D. D. PROVOST,
(PRO TEMPORE.)
THE
TRUSTEES AND MEDICAL PROFESSORS,
OF THE
UNIVERSITY OF PENNSYLVANIA,
ON THE TENTH DAY OF APRIL, 1807.
FOR
THE DEGREE OF DOCTOR OF MEDICINE.

BY WILLIAM BALDWIN,
OF PENNSYLVANIA,
MEMBER OF THE PHILADELPHIA MEDICAL AND
LINNEAN SOCIETIES.

“ Think, read, and observe. Observe, read, and think for yourselves.” RUSH.

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.....
1807.

George C Shattuck with the
best wishes of his friend the
Author.

TO

DOCTOR WILLIAM A. TODD,

OF DOWNTON,

IN THE COUNTY OF CHESTER,

This Dissertation,

IS GRATEFULLY DEDICATED, AS A SMALL, BUT GENUINE
TRIBUTE OF RESPECT, NOT ONLY FOR HIS TALENTS
AS AN ENLIGHTENED AND SUCCESSFUL

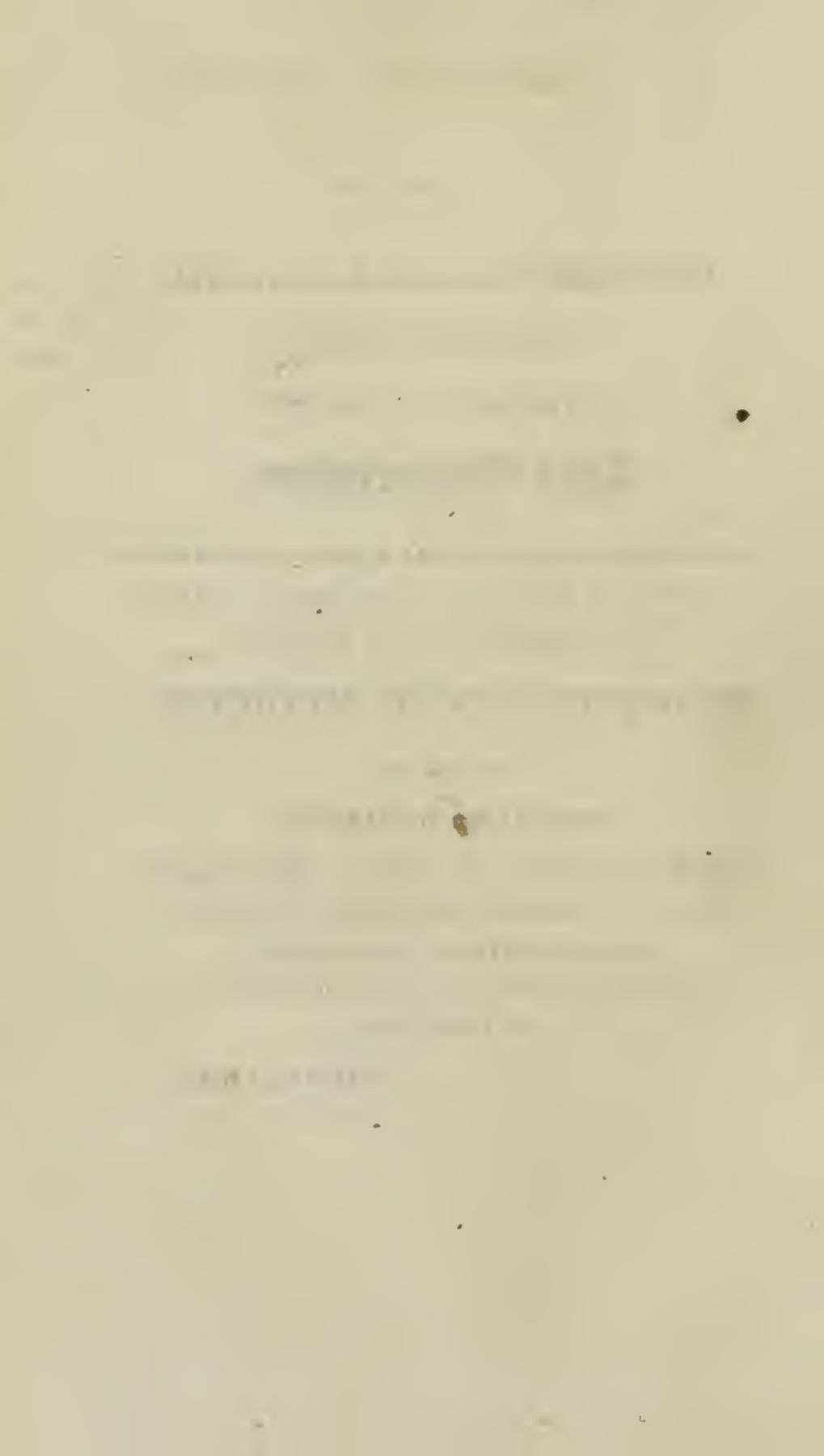
PRACTITIONER OF MEDICINE,

BUT FOR THE

AMIABLE¹ QUALITIES

WHICH HE POSSESSES AS A MAN, AND FOR THE MANY
PRIVATE MARKS OF DISINTERESTED FRIEND-
SHIP, AND ESTEEM, WHICH HE HAS
SO OFTEN CONFERRED UPON HIS SINCERE FRIEND,
AND LATE PUPIL,

THE AUTHOR.



Introductory Remarks.

IN this short narrative of the diseases, which prevailed among the American Seamen at Wampoa, in China, I do not expect to add to the list of diseases, nor to bring forward new remedies in the treatment of them. I believe with Dr. Clark, "that diseases in every climate are respectively the same," or differ only in degree, from the difference in force of the remote cause, or the susceptibility of the system to be acted upon by it, and are to be subdued by the same remedies, accommodated to circumstances.

In the mode of treatment, however, which I shall recommend, I am obliged to differ from Lind, Clark, and other respectable European physicians who have treated of the diseases of warm climates, and who have condemned the use of blood letting, and the antiphlogistic mode of treatment altogether. Clark informs us, that in both the remitting and intermitting forms of disease, the early and liberal exhibition of the bark was most to be depended upon, that blood letting was unsafe and often injurious, and even prepared the way for visceral obstructions. As I found blood-letting to be useful, and the early exhibition of the bark to be almost uniformly improper, and as the work of this respectable physician, whose opportunity of acquiring a knowledge of the diseases of India and China was very extensive, is, I believe, more generally consulted than any other by the medical gentlemen, who enter as physicians on board of our merchants ships trading to these ports, I was induced to believe that a brief statement of the practice I pursued, and which was found to be the most successful, by all the medical gentlemen on board of the different Ships at that time, might be of some advantage, in preventing the young practitioner from being misled by authorities so respectable.

I would not however, venture to affirm that the practice which I pursued, would always be found the most successful. Diseases, and particularly Biliary Epidemics, appear to vary in their force, not only in different climates, but in the same climate and situation, in different seasons, so as to require some variation in the treatment. The best way then to avoid being misled, is to attend to the state of the system, and prescribe accordingly.

SITUATION OF WAMPOA,
WITH SOME OBSERVATIONS ON THE STATE OF THE WEATHER, AND PREVAILING FORMS OF DISEASE.

WAMPOA is a large village, situated near the borders of the river Tigris, about fifteen miles below the city of Canton*, and sixty above Macoa. The ships of all nations trading to the port of Canton are stationed here, and the river at this place is about half a mile wide, meandering in a westerly direction.— Wampoa stands upon the south side of the river, on an extended plain, on which rice alone is cultivated, so low that the greatest part of it is overflowed by the tide. On the North side of the river, French and Danes Islands are situated, which are formed by intersections of the river, and are remarkable for the mountains in them surrounded by morass.

I arrived here from Europe in the ship New-Jersey of Philadelphia, after a voyage of 125 days, on the 29th of July, at which time there were only eight American ships in the harbour. We had experienced but little sickness on the voyage, and our crew were all now in a state of health. The weather was very sultry, with frequent showers of rain, often attended with thunder and lightning, and variable winds. There was at this time more or less sickness on board of all, or most of the ships, and my friend Dr. John Martin, of the Ganges informed me, that it was then becoming more sickly, and that several deaths had already occurred.

The weather continued sultry during the month of August, and until the 13th there had not been more than two days in succession, without frequent heavy showers of rain, alternating with hot and oppressive sun-shine, often attended with thunder and lightning, but rarely heavy thunder-storms. From this time till the 18th, much rain fell, and the sky was almost constantly obscured. We had now one week of fair weather. On the 25th we had a tremendous storm of wind and rain from the Southward and West-

* Canton is placed in lat. 23. 20. N. and long. 113. 07. East of London

ward, which sent many of the ships adrift from their moorings, and considerable numbers of the Chinese, residing in their flat-bottomed junks, on the water, were upset and drowned. The remainder of the month was mostly fair, and the heat rather less oppressive. The mercury in Farenheit's Thermometer ranged from 87 to 90, and never I believe ~~reached~~ ^{rose} higher than 92. Fevers, principally of the remitting form, continued to increase till about the middle of the month, from which time they began to diminish, and on the first of September, there were but few cases of sickness in the fleet. Two deaths only occurred.

The weather in the month of September varied but little upon the whole from the preceding: frequent showers of rain, variable winds, with alternate hot sunshine, characterized the fore part. On the 14th, there was a storm of heavy rain, and the mercury fell suddenly from 90 to 83, which proved a change so sensible, that cloth clothing was rendered comfortable. Toward the latter end of the month, the mornings and evenings were sometimes cool and damp, while it was excessively sultry in the middle of the day. A foul stench was emitted from the marshes, and the mosquitoes were very troublesome. At this time there was the greatest number of sick, and the remittents had assumed a more malignant aspect. There were upwards of 20 ships now in the harbour, and we anticipated an alarming epidemic. But one death, however, occurred during this month. The month of October was much more pleasant than the preceding months. Much less rain fell, and the heat was seldom so oppressive. The prevailing winds were from the northward, influenced by the monsoons. The sky was serene, and contrary to our expectations, we had much less sickness. The diseases now appeared principally in the form of intermitting fevers. The fore part of November was also pleasant, but the mornings and evenings were cool. About the middle of the month a great quantity of rain fell, and during this time the weather was unusually sultry. On the 17th we had another severe gale of wind, accompanied with heavy rain, called in this country a typhoon, which committed ravages similar to the former. We had now several days of cloudy cool weather, with easterly winds. On the 21st, a fire in the factories at Canton, was rendered indispensable to our comfort. The prevailing diseases were intermittents, principally of the tertian type.

Causes which predispose to Disease among Seamen in warm climates.

BEFORE I proceed to treat of the phenomena and symptoms, I shall enumerate some of the causes which tend eminently to predispose to disease and death among seamen in warm climates, on first coming into port, and these are,

First, *A change of aliment.* The sudden transition from a diet of salted animal to both fresh-animal and vegetable food. I consider this a fruitful source of diseases, and one which has been too little attended to. Fresh animal food, from the greater nourishment it contains, produces general as well as local debility, and thereby predisposes to general disease with a local determination to the bowels.

2d. *Change of drink—and first of water.* This may be injurious from its quality or quantity: but secondly, a much more destructive source of disease and mortality arises from the pernicious practice of drinking spirituous liquors, which is unfortunately too universal among sailors, and added to the heat of the climate, produces a debility, which predisposes to the most malignant and dangerous forms of disease.

3d. *Exposure to the rays of the sun.* Seamen often expose themselves with their heads bare, and the consequence is frequently an attack of fever, or it is sometimes immediately fatal, producing a species of apoplexy, or what is termed by the French “Coup de Soleil.”

4th. *Lying upon deck at night, exposed to the damp air, and morbid exhalations, without any covering.* This is often the effect of intoxication, and is generally followed by an attack of fever. To these causes might be added, violent exercise, and the practice of continuing long in the water. Frequent and moderate bathing I believe to be salutary, but it is generally carried to a dangerous excess.

Phenomena and Symptoms.

A CHILL, more or less nausea, vomiting, or purging of bile, pain, or oppression about the præcordia, pain in the head, small of the back, or bones in general, are, I believe, symptoms that more or less universally characterize the ushering in of biliary remittents, wherever they prevail. But these symptoms are often varied, and in cases of great violence no chill occurs. Many cases in the present instance were marked by an early and peculiar determination to the brain, attended with giddiness, stupor, or delirium ; eyes red and inflamed, with flushing of the face. These latter symptoms were more particularly evident in those who had been using violent exercise, or had been much exposed to the influence of the sun's intense rays, and where the bowels were constipated. In some cases, and particularly in those who were seized immediately after their arrival in port, there was a particular determination to the bowels, attended with biliary purging, great pain and tenesmus. The premonitory symptoms were generally great debility, universal languor and drowsiness ; sometimes an uncommon elevation of spirits, preceded an attack of this fever, the patients informing me, that they had never felt better than they had done the day before. In most of the cases an exciting cause could be traced, as violent exercise, exposure to the rays of the sun, excess in eating or drinking, lying on deck at night, or remaining too long in the water, &c.

After the formation of the fever, the pulse was generally full, but except in a very few cases, rarely imparted a sense of tension to the fingers. The skin was parched and hot, thirst excessive, and the tongue furred of a yellow colour.

The remissions were irregular, as influenced by the force of the disease, or the remedies applied. If, however, the disease was suffered to progress, from entire neglect, or the application of feeble remedies, which, fortunately, was the case only in a very few instances, the remissions became more indistinct, and the continued or typhus form of fever was induced, which was extremely difficult to manage, and too frequently terminated sooner or later in death, attended with all the variety of distressing symptoms which usually characterize this dangerous form of disease.

General Account of the Treatment.

WHEN called early, I generally began by opening a vein in the arm, from which I drew from 10 to 16 ounces of blood, according to circumstances, which it was seldom necessary to repeat. The blood drawn sometimes exhibited a sизy appearance. This evacuation was always attended with the happiest effects, affording an immediate mitigation of the most alarming and distressing symptoms.

The next remedy that I employed was calomel combined with jalap. Ten grains of each was a medium dose. I sometimes gave 15 of calomel, and 25 of jalap, which in some cases I repeated with the happiest effect. These large doses seldom procured more than three or four copious stools. In a few cases one stool only has been the result, and in one case after repeating it, I added half an ounce of sulphate of soda, before an evacuation was produced. I afterwards found the calomel in doses of 4 or 5 grains, combined with a sixth or an eighth of a grain of tartarized antimony, and given every four, five or six hours, the best febrifuge. These doses I continued in some cases till the fever was subdued. The mercury given in this way rarely affected the mouth. I sometimes made use of nitre, with or without calomel or the emetic tartar. By this mode of treatment the disease was often subdued as early as the third day, when I commenced giving the peruvian bark, so celebrated in these fevers, and which indeed I sometimes found of infinite service, in speedily restoring the patient to health, after the sudden removal of the inflammatory dia-thesis : but some quickly recovered without taking any, and others took so little that no material good effects should be ascribed to it.

Blisters and sinapisins were of service when applied in the proper stage of the disease ; the former after the inflammatory symptoms were moderated, and the latter accompanied with blisters, when the disease run on to the typhus stage. In dysenteric cases, I began as before, but substituted rhubarb for jalap, and afterwards, if the symptoms continued, gave castor-oil, opium combined with calomel, or ipecacuanha, with the happiest effect.

In the month of October, and the remaining part of the season, as has been already mentioned, intermittents were the prevailing forms of disease. These were of a very obstinate inflammatory nature, chiefly of the tertian type. Very few yielded to emetics or cathartics, and the use of the peruvian bark alone.— Bleeding in every case in which I employed it, evidently accelerated the cure. I then gave strong mercurial cathartics, as I had done before in the remitting fever, preferring them to the common practice of giving emetics, as they depleted more effectually. I then generally succeeded in arresting the disease by the application of blisters, and the exhibition of a large dose of opium about half an hour before the expected paroxysm, which had the effect of preventing its recurrence, after which the bark perfected the cure.

My friend and fellow graduate, Mr. Thomas Bryant, then physician on board the ship Jefferson, informed me, that he had two very obstinate cases at Canton. He bled each of them once, and gave strong mercurial cathartics—but was under the necessity of inducing a salivation in one of them, before he exhibited the bark.

I intended, in this place to have given a few of the most interesting cases at full length, but as the time allotted for preparing this essay has nearly expired, I hope I shall be excused for omitting it. I have, however, just received an interesting statement of cases from my obliging friend Mr. Hugh Service, which will in a great measure supply the place of them, and tend further to establish the mode of practice which I have recommended.

DEAR SIR,

AGREEABLY to your request, I offer you a few observations on the treatment of the principal diseases which came under my notice at Wampoa, from the latter end of September to the end of December 1805. We remained at Wampoa until the 23d of March, 1806, but after the month of December 1805, there were but few vessels there, and all of them enjoyed good health.

From the conversation that I have had with you, the result of your experience agrees with that of mine. From reading Clark,

I had an idea that the bark would be the only remedy required in the fevers of the Eastern tropical climates, and I therefore supplied myself with a large quantity of it. But, instead of having occasion to use it in all cases, without any attention to the exacerbations or remissions of the fever, as directed by this author, I found it necessary in most cases to abstain from it, until I had procured a perfect intermission.

I am indeed convinced, that if we had pursued Clark's plan, we should have had either very few recoveries, or very tedious ones : for modes of treatment directly opposite to each other, cannot be supposed equally proper in the same forms of disease : it is therefore presumable—is it not certain? that the antiphlogistic treatment was the proper one, as it was attended with success.

I found bleeding necessary in most of the recent cases of fever arising from marsh miasmata, that came under my notice ; and in all which I attended excepting one, which will be mentioned more particularly hereafter. I was careful not to exhibit the bark, until I had procured an intermission of the fever. One moderate bleeding at the commencement, I generally found sufficient.

In the first two cases of remittent fever, which came under my direction, I gave calomel for the purpose of exciting soreness of the mouth, premising bleeding in one of them, and a purgation ~~and~~^{ve} in both. On the third day the mouth was affected, and there was an intermission of fever, so that I was enabled to begin with the bark. They both recovered in a short time.

I did not think that the treatment with mercury was attended with any peculiar advantage in these cases, and therefore did not pursue it afterwards. I had only one case in which I thought it prudent to exhibit the bark, without having procured a perfect intermission of the fever. In this case, (that of a young man on board the Active) it was rendered necessary by my having used the lancet too freely, and this is the only case where I had reason to think that I had used the lancet disadvantageously. I still think that bleeding was proper in his case, but it should have been limited to a few ounces, or have been drawn more gradually. I took twenty-four ounces at two bleedings.—He recovered under the use of the bark and wine.

I saw some cases of intermittents in which the paroxysms attacked with so much violence, as to require the lancet repeatedly. In the case of a young man about 20 years old, on board the Beaver, the last stage was accompanied with excruciating pain in the side and breast, and difficulty of breathing. I saw him in three successive paroxysms, and took twelve ounces of blood from him each time. The operation always procured immediate relief.

I was called to see a young man, on board the Pekin, in the absence of Dr. Moore, Surgeon of that ship. He complained of acute pain about the Epigastrium, with an active pulse, and a hot but moist skin. I took twelve ounces of blood from him, which removed the pain, in a short time, but as it returned tho' much less violently, I applied a blister and directed 6 grains of Calomel, and 2 of Opium : By these means he was relieved so much as to render it safe to send him to Canton, where he was attended by Dr. Moore. The Doctor informed me, that a few days before I saw this man, he was obliged to bleed him twice in one day, for an attack of the same kind. This disease proved to be an intermittent at Canton, and was extremely obstinate, but at length yielded to very large doses of opium and Cayenne pepper, after the failure of other remedies.

I was requested to visit a man about 40, of a robust habit on board the Active, who had received a wound on the left side over the false ribs, with a Cutlass. After the most careful examination, it did not appear to me to have penetrated the cavity of the thorax. He, however, complained of pain at intervals, shooting from the wounded part to the breast. The pain was not constant but when present was so acute, that I was induced to bleed him five or six times, and apply a blister in the course of two or three days.—it at length put on the form of a double quotidian ; the paroxysm coming on with chilliness, succeeded by the pain and fever and terminating in a sweat. This continued after the wound had healed entirely: the bark was directed. He left Wampoa, not perfectly well, though able to walk about, and recovered his health at sea.

Although it appeared very evident that the wound did not penetrate the thorax, I at first apprehended that the acute pain he complained of was caused by it ; but as it put on the form of a

double quotidian, is it not probable, that its occurring at this time was merely accidental ?

January 12, 1806. The carpenter of the Active, a man about 30 years of age, with a full frequent pulse, complained of great pain in his side. He had taken half a pint of blood from himself before I saw him, and the pain encreased after it. I immediately took away sixteen ounces more, which mitigated the pain very much. In an hour or two after he became quite delirious, his pulse seeming more active than before bleeding : when interrogated, he said that he still had some pain in his side, but in giving one or two correct answers, he would again become delirious. I left him, to prepare a dose of Calomel, but when I returned in a short time after, I was surprised to find him in a tranquil sleep.

The next day he was quite sensible, complained of pain in his breast, and over his eyes, but of none in his side—pulse full and frequent, with a little cough. I took away ten ounces of blood, which produced faintness, and mitigated the pain—a dose of castor oil was given. As soon as it began to operate, the pain in his side left him entirely, and that of his head was rapidly abating.—In the evening he left Wampoa for sea, quite relieved.

Hepatitis. Of this disease I saw three cases. One under the care of Mr. Knight, who subdued the disease by two copious bleedings, the application of two blisters, and by purgatives without exciting salivation. One was the case of Capt. W. in whom all acute symptoms were removed by two bleedings, the application of a blister, with purgatives and antimonials—but, although Dr. Moore affected his mouth with mercury, he had not perfectly recovered, when he arrived in Philadelphia. Some time after his arrival I saw him, and he informed me he was quite well.

This gentleman, when I saw him, (and then he laboured under the disease in a very acute form,) complained of pain about the third superior rib of the right side, but of ~~none~~ in his ¹²⁰² shoulder.

The third case which had a less agreeable termination, was that of a man about twenty-five, on board the Active. No medical

person saw him until the fourth or fifth day after his seizure, when he was visited by Mr. Knight, who bled him, applied a blister to the hypochondrium, and directed calomel in small and frequent doses. I saw him on the seventh day. He was unable to lie on his left side, as this posture created a sense of weight and tearing from the right side. He complained of pain in the right hypochondrium, but it was by no means so acute, as it had been on the preceding evening when he was bled. He complained of no pain in his shoulder, nor did he through the whole course of the disease.

On examination, a tumor was found in the left side over the false ribs, whose surface was inflamed by the blister which had been applied over this part, and the skin for some distance around it had an emphysematous appearance.

He said that he perceived this swelling about two days after the pain commenced in his side. No enlargement was perceptible either in the epigastrium, or below the false ribs.

Another blister was applied over the hypogastric region, and the calomel was given in larger doses, combined with opium.

On visiting him the next day, his gums were sore: he did not complain of pain in his side, and lying upon his left side did not cause so much uneasiness as on the preceding day. The calomel was discontinued, as soon as the mouth became well affected.

In a day or two, it was evident that the tumor contained a fluid. With the consent of Mr. Knight, I made an incision into it, an inch in length, which discharged about four ounces of a fine thick pus. He felt much relieved as soon as the matter was evacuated, his appetite became good, and he gained strength rapidly, not having any hectic symptoms. There was an oozing of matter from the opening for a few days—it gradually decreased in quantity, and in about three weeks the wound healed. He sailed from Wampoa in perfect health.

I met with several cases of dysentery, but observed nothing peculiar in it. In recent cases, it was generally very tractable, under the use of castor oil, and the neutral salts, with the cautious use of opium.

*Observations on the mode of treatment
pursued by Dr. Clark.*

This celebrated physician recommends attacking the most powerful form of disease that occurs in India and China, with gentle vomits and purges.* The object of these, was to clear the intestinal canal, and prepare the way for the immediate exhibition of the bark ; and for this purpose he advises the exhibition of tartar emetic in small doses, to render the operation of which more certain, he combined with it a little manna, decoction of tamarinds, or a few grains of Calomel.--Or, in cases of great pain in the stomach, attended with deliquium, instead of " commencing with these evacuations, he found it necessary in order to relieve the pain to give one grain of opium immediately on the attack of the fever, to apply fomentations to the region of the stomach, and to open the bowels by glysters. When the inflammation in the stomach ran high he was deterred from giving any thing more powerfully emetic than chamomile tea, mitigating the pain and vomiting with opium, and afterwards opening the bowels with a decoction of tamarinds and magnesia. His cure then entirely depended upon giving the peruvian bark, in as large doses as the patients stomach would bear, without paying any regard to the remissions or exacerbations of fever."

With respect to bleeding he observes, " that from the violence of the symptoms, he thought it might require at least one bleeding : and finding the same evacuation recommended by Dr. Huck and Dr. Cleghorn, he was induced to open a vein during the paroxysm in three of his patients at Culpee." The consequence, he informs us was, the first did not bear the evacuation ; his pulse flagged, and he was very delirious in the ensuing fit ; the remissions becoming very obscure ; and the exacerbations were only to be known by his delirium. The other two were seized very suddenly and fell down in a deliquium ; on opening a vein they returned to their senscs ; but before 5 or 6 oz. of blood were taken away, they became faint ; and the feverish paroxysm ran higher than in those who did not suffer the evacuation. For the future, he was determined to be very cautious in the use of blood-letting,

* Clark, on the Diseases of long Voyages, &c. sec 2 Edt. page 180.

and, therefore laid it aside in every fever in warm climates, both at sea and on shore, unless accompanied with topical inflammation.”*

Had I pursued this gentle treatment, I am satisfied, that where death would not have been the consequence, the continued or typhus form of fever would have been induced. With respect to the peruvian bark, I found that its exhibition was uniformly hurtful, or at least inefficacious till after the inflammatory diathesis was completely subdued. I never had any cause to regret not giving it in time, but on the contrary, from fear that was excited in me by reading; I had to regret giving it too early.

As for cases of that violent description, attended with deliquum and excessive pain in the stomach, I will only remark, that in a case of this kind, to which I was called, the patient had complained of the most excruciating pain in his stomach, soon after which he fell down in a deliquum. In this situation I saw him, and immediately drew 12 ounces of blood, which restored him to his senses, but so excessive was the pain, that he soon became delirious, till by the exhibition of a large dose of Calomel and jalap, I removed the cause, when he speedily recovered, without the use of either opium, fomentations, or the bark.

It appears from the Doctor’s account of blood-letting, that except in cases of topical inflammation, he laid it aside altogether, from the conviction that his patients could not bear the evacuation. Why it should be better borne in cases of equal violence, attended with topical inflammation, I am at a loss to conceive, and I am induced to believe, that even in those cases he has mentioned, wherein the patients were seized suddenly with deliquum, and who, after the loss of a few ounces of blood, which restored them to their senses, became again fainty, might afterwards have been bled more copiously with advantage: as he informs us that the feverish paroxysm which succeeded, ran higher than in those who did not suffer the evacuation—The reason appears obvious—The force of the disease was greater in the former, and the deliquum was a symptom, not of pure debility, but of depression; hence the loss of a few oz. of blood, only served to unlock the disease or to use the emphatic words of Dr. Rush, “to let the tiger loose.” after which he ought to have been tamed by more bleeding.

* Clark, on the Diseases of long voyages, &c. see page 170

The improper application of remedies, has occasioned some of the most valuable to be condemned as pernicious, or laid aside as useless. The antiphlogistic mode of treatment, *as practised by many of the English physicians*, appears to me to be as little calculated for success, as the stimulating or tonic plan. When bleeding* was employed, it was often in so sparing a manner as not to be effectual or beneficial, and their evacuating remedies, which consisted principally of antimonials, given in shall doses, were so feeble, that when evident remissions or intermissions occurred, which they patiently waited for, the disease had so far exhausted the patient, as to render the bark and every other remedy ineffectual.

I shall only remark further on the subject of blood-letting, that, although it did not appear to be essentially necessary in every case, (and some cases were subdued without it,) yet from the success which always followed its use, I had to regret my timidity in not using it more generally.†

* In cases attended with violent pain in the head, Dr. Lind advises the loss of a few ounces of blood from the foot, but observes, " that it must be drawn with great caution."

† Owing, as I sincerely believe to my with-holding the lancet, and other depleting remedies, and pushing the bark too early, a few cases were protracted, and rendered dangerous. In one ease of Remittent fever accompanied with violent pain on one side of the head, which extended with marks of inflammation down the face, and the eye on that side much inflamed, although the patient was bled twice, pretty freely, yet as no powerful cathartics were administered, and the bark given in the remissions, the disease still progressed, till I laid aside the bark and perfected the cure with Calomel.

I was near losing another from the same cause in the third paroxysm of an apoplectic tertian. In this ease after cleansing the bowels with a large dose of Cal. and Jalap, I poured in the bark. So severe was the third paroxysm that the patient lay comatose, his respiration was difficult, with deep and heavy sighs, sudden involuntary starting, and dilatation of the pupils of his eyes. I now gave him Calomel freely, combined with a little tartar emetic. The fourth paroxysm was moderate, and I prevented the recurrence of the fifth, by the application of blisters and a large dose of opium. He now recovered on stimulating aliment which his stomach craved, and which precluded the necessity of giving the bark.

Making comparative statements of the mortality that attends different modes of treating diseases to enable us to judge of the most successful, may sometimes be fallacious ; but as I know of no better criterion, I may observe, that of 19 cases, which Dr. Clark has recorded, of the remitting fever which occurred in India, at sea and in China, six proved fatal, and most of the others recovered with great difficulty. None were restored in less than a week, and the cure of several was protracted to a month and upwards.*

In the practice that was pursued at Wampoa and Canton, by myself and others, not a single death occurred to my knowledge, where timely application had been made, and where prompt attention was given. Three deaths only occurred that came under my notice, two in August, and the other in September. The first had been indisposed for ten days before medical aid was resorted to. The second had been visited, it is true, on his first attack, but was afterwards neglected, till the disease had progressed so far, that it could not be arrested, and the third was not seen till several days had transpired.

I have been since informed, that shortly after I left Wampoa, the small pox made its appearance among the New-England ships, and proved fatal to several.

Account of Diseases which occurred on the passage home.

WE sailed for America, on the 30th of November, at which time, as has already been stated, the weather had become cool. We had not at this time any cases of sickness on board worthy of remark. As we approached the low latitudes, however, in the China sea, and the weather became wet and sultry, some cases occurred which I shall briefly notice. The patients were seized with slight chills, attended with pain in the head and bones, great oppression about the pæcordia, and universal languor. I bled, and gave strong mercurial cathartics, with the same success I had before done in port. In one case attended with pain in the side, I drew 16 ounces of blood, gave a strong mercurial cathartic, and the

* Clark on the Diseases of long voyages, page 188.

ensuing day the patient was enabled to attend to moderate duty. In another case, the patient was restored to duty in a few days by the use of twenty-five grains of calomel, thirty-five of jalap, and an ounce of the sulphate of soda.

On the 18th of December we past through the straits of Sunda. The weather had been very sultry, with heavy showers of rain, thunder and lightning, particularly during a passage of five days through the straits of Gaspar and the Java sea. We had now several days of wet weather, damp, chilly and disagreeable. During this time, two of the most troublesome cases of disease occurred that I had met with.* The patients were first seized with fevers of the intermittent form, which being mild in one of them soon yielded to the bark. In a short time however, he relapsed again, and before I was able to subdue it the second time, a severe lax came on, attended with griping, tenesmus, and a discharge of blood and mucus. By the use of calomel and rhubarb, opium and ipecacuanha, and the application of blisters, the pain and tenesmus had nearly subsided, and the stools became much less frequent on the seventh day. The patient was now much debilitated, and still had no appetite. The stools continued and increased again in frequency, but they were unaccompanied with pain.

I now as a last resource, combined with the opium two grains of the sugar of lead, which I repeated but a few times, when his appetite returned, and he recovered fast from a state of great debility. His legs swelled for a short time, but in little more than a week he was again on duty.

In the other case the intermitting fever was much more obstinate, but I at length succeeded in checking it by large doses of opium, and the patient had by the use of the bark recovered considerable strength, when he was seized with a diarrhoea. This continued for four days, without being alleviated by any of the means which I employed. The stools were frequent, but in small quantity of a thin slimy consistence, and were unaccompanied with griping or tenesmus. From the debility which was now induced, I began to be alarmed for the fate of my patient, and had recourse to the acetate of lead, which I began with as follows.

* A barrel of Beef was at this time undergoing the putrefactive process in the forecastle.

Dec. 26th. Gave one grain of the sugar of lead in a watery solution, which I repeated in the evening.

27th. Stools less frequent, but I gave during the day four grains of the medicine. At night the stools were increased in frequency.

28th. During the forenoon the stools were as frequent as they had been during the whole course of the disease. In the morning I gave two grains of the medicine at a dose. In the afternoon he took six grains at three doses, with a grain of opium at bed time. The stools were notwithstanding very frequent during the night.

29th. Had no motion all day, and took nothing. During the night he had two moderate discharges from his bowels, and having in his possession two of the powders, each containing three grains, on rising to stool he took one each time, contrary to my directions.

31st. Having had no passage through his bowels since the night of the 29th, and feeling some little pain and stricture in his stomach, I felt alarmed for the effects of this powerful and dangerous medicine. I gave him small doses of rheubarb, till an operation was produced, which had the happy effect of removing these symptoms. His appetite returned, and he recovered so rapidly, that in a few days he was again on duty.

I cannot conclude without observing, how much it is to be regretted, that the merchant ships are not more generally furnished with Physicians, especially when it is considered how extensive the trade has become, and how profitable East-India voyages are. If the lives of our seamen are considered of any importance, either in a moral or commercial point of view, some regard ought surely to be extended toward the preservation of their lives, in those climates where diseases are rapid in their progress, and too generally fatal in their termination, without the prompt aid of the Physician.

Conclusion.

FOR the imperfections of this narrative, I must plead want of time and bodily indisposition. I have endeavoured as briefly as I could to give a correct statement of the diseases which came under my notice, and my treatment of them. In this it was my aim to accommodate my remedies to the states and symptoms of disease, unbiassed by favorite theories or popular opinions, which have often retarded improvements in the healing art. I must, however, in justice to the enlightened professor of the institutes and practice of medicine in this University, acknowledge that it was from him I imbibed the principles which I have applied in my practice, and they certainly possess this peculiar advantage, that they direct the attention of the student to the state of the system, instead of the name of the disease.

Of the *illustrious* Professors in this University, I now take my leave. They individually claim from me a tribute of the warmest respect. That I may ever merit their esteem and friendship, is my ardent wish. With Professor Barton, I have had the honour of a more intimate acquaintance, and am happy in declaring how much this *acquaintance* has contributed to my happiness. His zeal for the promotion of science in general, and the success that has attended his valuable labours, in exciting a spirit of useful enquiry, reflect equal honour on himself and the profession of which he is so worthy a member, and will entitle him to the praise and gratitude of his country and mankind.



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